Drawings

The attached sheets of drawings reflect formal drawings of Figures 1 through 5. These sheets, which include Figures 1, 2, 3, 4 and 5, replace the original sheets including Figures 1, 2, 3, 4 and 5. In Figures 1, 2, 3, 4 and 5, handwritten markings have been replaced with typewritten text and numerals.

Attachment: Replacement Sheets

Remarks

The Office Action mailed December 19, 2007 has been received and carefully considered. Upon entry of the present amendments, claims 1-4, 6, 9, 10 and 12-20 will be pending. In the Office Action, claims 1-4, 6, 9, 10, 12 and 15-20 are rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 4,118,654 to Ohta et al. (Ohta) in view of U.S. Patent No. 3,968,365 to Sohngen (Sohngen); and claims 13 and 14 are rejected under 35 U.S.C. § 103(a) as obvious over Ohta in view Sohngen and further in view of U.S. Patent No. 3,896,576 to Wolf et al. (Wolf). Reconsideration of the Application is respectfully requested.

I. Amendments to the Claims

Claims 1, 9 and 15 are amended to incorporate the limitation of being configured to emit a predetermined amount of infrared radiation. New claim 21 is added to depend from what s believed to be allowable claim 1.

Because all independent claims now include limitations fully supported by the Specification as filed, and because the new dependent claim is added to depend from what is believed to be allowable claim 1, it is respectfully submitted that the amendments to the claims have put the Application in condition for allowance and Applicants respectfully request such allowance.

II. Rejection under 35 U.S.C. § 103(a).

A. Rejection of claims 1-4, 6, 9, 10, 12 and 15-20 over Ohta in view of Sohngen

In the Office Action, claims 1-4, 6, 9, 10, 12 and 15-20 are rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 4,118,654 to Ohta et al. (Ohta) in view of U.S. Patent No. 3,968,365 to Sohngen (Sohngen). The rejection is respectfully traversed.

As stated by the Federal Circuit, "a proper analysis under 35 U.S.C. § 103 requires, inter alia, consideration of two factors: (1) whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition or device, or carry out the claimed process; and (2) whether the prior art would also have revealed that in so making or carrying out, those of ordinary skill would have a reasonable expectation of success." In re

Vaeck, 947, F.2d 488, 493 (Fed. Cir. 1991). In addition, the prior art reference(s) must teach or suggest all of the claim limitations. The teaching or suggestion to combine and the reasonable expectation of success must both be found in the prior art, and not in the applicant's disclosure. Id at 493. See also M.P.E.P. § 2142.

Several of the features recited by Applicant in independent claims 1, 9 and 15 are not taught or disclosed by Ohta and/ or Sohngen.

Ohta, as understood, is directed to an automatic light intensity control for an X-ray film viewer where the intensity of light penetrating an X-ray film is automatically maintained at a preset, adjustable, eye comfort level. A sensor is used to detect the average light level on the viewer side and the output of light is controlled by a capacitor coupled to the emitter of a unijunction transistor. When the sensor detects an increase in the light level, the capacitor charging time increases, thereby decreasing the light source intensity.

In addition, Sohngen, as understood, is directed to a film sensor for an automatic X-ray film loader. A sensor has an infrared source with an output that is filtered outside the spectral sensitivity of the X-ray film. The sensor may be used to monitor a supply magazine and also determine the presence of film in a film path.

The present application recites a light control system for a film viewer including an emitter, a detector disposed adjacent to the emitter and configured to detect emissions form the emitter, and a microprocessor configured to control a light in response to a change in the detected emissions resulting from one of an insertion of a film between the emitter and the detector and a removal of a film from between the emitter and the detector.

It is well established that "the examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness." MPEP §2142 (p. 2100-127). "[T]he examiner must provide evidence which as a whole shows that the legal determination sought to be proved (i.e., the reference teachings establish a *prima facie* case of obviousness) is more probable than not." MPEP §2142 (p. 2100-128). "If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness." MPEP §2142 (p. 2100-127).

In rejecting claims 1-4, 6, 9, 10, 12 and 15-20, the Examiner stated:

4. Claims 1-4, 6, 9, 10, 12 and 15-20, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohta *et al.* (4,118,654), in view of Sohngen (3,968,365).

With respect to claims 1-3, 6, 9, and 12, Ohta discloses a system for viewing X-ray films wherein a photosensor adjusts the intensity of a light source according to the presence, absence, or transparency of a film (abstract). However, Ohta does not teach the use of an IR system with a processor configured to determine a type of film. However, IR detection switches are well-known in the art, as demonstrated by Sohngen. Sohngen discloses a system for detection of the presence or absence of an X-ray film using IR radiation (column 2, lines 48-55), wherein an IR emitter (IR LED, column 2, line 20) and sensor may be disposed on opposing sides of the inserted film (column 2, lines 25-30). Sohngen further states, "This signal can then be used in conjunction with other electronics to produce control functions." These "other electronics" would include a processor as an obvious choice to one of ordinary skill in the art, and also "control functions" would reasonably include adjustment of light conditions based on the detected signal, which would be indicative of a type of film. It would have been obvious to one of ordinary skill in the art to use the infrared system of Sohngen in a film detection system such as the one set forth by Ohta, in order to provide accurate levels of illumination with minimal or no adjustment by the operator.

Independent claim 1, as amended, states as follows:

> A light control system for a film viewer comprising:
> an infrared emitter *configured to emit a predetermined amount of infrared radiation*;
> an infrared detector disposed adjacent to the infrared emitter and configured to detect infrared emissions from the infrared emitter; and
> a microprocessor configured to control a light in response to a change in the detected infrared emissions resulting from one of an insertion of a film between the infrared emitter and the infrared detector and a removal of a film from between the emitter and the detector, wherein the microprocessor is further configured to determine a type of film, selected from the group consisting of opaque, transparent and optically clear, interposed between the infrared emitter and infrared detector in response to the change in the detected infrared emissions.

Independent claim 9, as amended, states as follows:

> A film viewer comprising:
>
> a housing;
> a light;
> an infrared emitter *configured to emit a predetermined amount of infrared radiation*;
> an infrared detector adjacent the infrared emitter and configured to detect infrared emissions from the infrared emitter; and
> a microprocessor configured to detect a change in infrared emissions detected by the infrared detector when a film is interposed between the infrared emitter and the infrared detector, and further configured to energize the light in response to the detected change in emissions in response to *an optically clear film* being interposed between the infrared emitter and infrared detector.

Independent claim 15, as amended, states as follows:

> A method of controlling illumination in a film viewer, the method comprising:
>
> emitting a detectable infrared emission with an infrared emitter *configured to emit a predetermined amount of infrared radiation*;
> detecting a level of infrared emissions received by an infrared detector;
> determining a change in the detected level of infrared emissions; and
> automatically controlling a light source in the film viewer in response to the determined change in the detected level of infrared emissions exceeding a preselected value, the preselected value corresponding to a change in the detected level of infrared emissions smaller than a change in the detected level of infrared emissions corresponding to infrared emissions passing through *an optically clear film*.

(Italics Added.) In the Office Action, the Examiner acknowledged that Ohta does not disclose all of the limitations present in independent claims 1, 9 and 15. More particularly, the Examiner recognized that Ohta does not teach, suggest, or otherwise disclose "the use of an IR system with a processor confi[g]ured to determine a type of film." p.3. Furthermore, given that Ohta does not disclose the use of an IR system, it necessarily follows that Ohta also does not disclose the limitation of independent claims 1, 9 and 15 concerning the infrared emitter, infrared detector and microprocessor.

In recognition of Ohta's lack of support in this regard, the Examiner relied on Sohngen, in effect asserting that Sohngen teaches, suggests, or otherwise discloses these limitations. Among other things, the Examiner, in applying Sohngen, stated, "Sohngen discloses a system for

detection of the presence or absence of an X-ray film using IR radiation, wherein an IR emitter and sensor may be disposed on opposing sides of the inserted film." The Examiner also relies on Sohngen, by stating "these 'other electronics' would include a processor as an obvious choice to one of ordinary skill in the art, and also "control functions' would reasonably include adjustment of light conditions based on the detected signal, which would be indicative of a type of film." Sohngen does not discuss the limitation of an emitter that emits a predetermined amount of infrared radiation, as recited in independent claims 1, 9 and 15. Sohngen discusses using a filter to eliminate unwanted radiation, which would tend to fog a film, but Sohngen does not teach or suggest the use of having a predetermined amount of infrared radiation, such as a continuous amount as recited in independent claim 1, as amended (See Patent Application 10/596,036 para. [0018] ls. 12-13).

In addition, independent claims 9 and 15 are directed to a system and method using optically clear film. Sohngen does not teach or suggest a system or method for use with optically clear film. Sohngen is directed to a system using opaque or translucent film. The system and method recited in independent claims 9 and 15 recite sensing optically clear film, which requires a sensitive configuration to detect the change in radiation through an optically clear film (See Patent Application 10/596,036 para. [0021]). Sohngen does not teach nor recite detecting an optically clear film or using a sensitive configuration to detect the change in radiation through an optically clear film. Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection of independent claims 1, 9 and 15.

Additionally, because dependant Claims 2-4, 6, 10, 12 and 16-20 depend either directly or indirectly on independent claims 1, 9 and 15, Applicant respectfully requests that the Examiner withdraw his rejection of dependant Claims 2-4, 6, 10, 12 and 16-20 as well. See MPEP §2141.02 (p. 2100-142) ("If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious.").

B. Rejection of claims 13 and 14 over Ohta in view of Sohngen, in further view of Wolf

In the Office Action, claims 13 and 14 are rejected under 35 U.S.C. § 103(a) as obvious over Ohta in view Sohngen and further in view of U.S. Patent No. 3,896,576 to Wolf et al. (Wolf). The rejection is respectfully traversed.

Claims 13 and 14 each depend either directly or indirectly on independent claim 9, and Wolf fails to overcome the deficiencies of Ohta or Sohngen. Applicant respectfully requests that the Examiner withdraw his rejection of these Claims on the basis of the remarks advanced by Applicant concerning independent claim 9.

C. New Claim

New claim 21 depends from independent claim 1 and is allowable for at least these reasons. No new matter has been added, as new claim 1 is fully supported by the specification, specifically paragraph [0018]. Further, new claim 21 depends from what is believed to be allowable independent claim 1, as discussed in further detail above. Therefore, Applicant respectfully requests that the Examiner allows new claim 21.

Conclusion

Accordingly, for at least these reasons, Applicant respectfully requests reconsideration of the Application and withdrawal of the outstanding objections and rejections. As a result of the amendments and remarks presented herein, Applicant respectfully submits that claims 1-4, 6, 9, 10, 12 and 15-21 are patentable over Ohta in view of Sohngen and claims 13 and 14 are patentable over Ohta in view of Sohngen and further in view of Wolf. Applicant further requests allowance of claims 1-4, 6, 9, 10, 12-21 in a timely manner. If the Examiner believes that prosecution of this Application could be expedited by a telephone conference, the Examiner is encouraged to contact the Applicant.

This Amendment/Response has been filed within three months of the mailing date of the Office Action and it is believed that no fees are due with the filing of this paper. In the event that Applicants are mistaken in their calculations, the Commissioner is authorized to deduct any fees determined by the Patent Office to be due from the undersigned's Deposit Account No. 50-1059.

Respectfully submitted,

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McNees Wallace & Nurick LLC

/Beth A. Endler/

Beth A. Endler
Reg. No. 59,295
100 Pine Street
P.O. Box 1166
Harrisburg, PA 17108-1166

Phone: (717) 237-5376
Fax: (717) 260-1688

Appendix

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